

1 KEVIN V. RYAN (CSBN 118321)  
2 United States Attorney

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8 UNITED STATES DISTRICT COURT  
9 NORTHERN DISTRICT OF CALIFORNIA  
10 SAN JOSE DIVISION  
11

12 UNITED STATES OF AMERICA, )  
13 Plaintiff, )  
14 v. )  
15 XIAODONG SHELDON MENG, )  
16 Defendant. )  
17 \_\_\_\_\_ )

No. CR 04-20216 JF

VIOLATIONS: 18 U.S.C. § 371 –  
Conspiracy; 18 U.S.C. §§ 1831(a)(2),  
1831(a)(3), 1831(a)(4) – Economic  
Espionage and Attempted Economic  
Espionage; 22 U.S.C. § 2778 – Arms Export  
Control Act; 18 U.S.C. §§ 1832(a)(1),  
1832(a)(3), 1832(a)(4) – Theft Of Trade  
Secrets and Attempted Theft Of Trade  
Secrets; 18 U.S.C. § 2314 - Foreign and  
Interstate Transportation of Stolen Property;  
18 U.S.C. § 1001 – False Statement To  
Government Agency; 18 U.S.C. § 2 - Aiding  
and Abetting; 18 U.S.C. §§ 1834 and 50  
App. U.S.C. § 2410(g) – Criminal Forfeiture

SAN JOSE VENUE

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22 The Grand Jury charges:

23 S U P E R S E D I N G I N D I C T M E N T

24 B A C K G R O U N D

25 At all times relevant to this Indictment:

26 Quantum3D

27 1. Quantum3D Inc. (“Quantum3D”), based in San Jose, California, was a company  
28 that produced hardware and software components for simulation systems for commercial and

1 military customers. Quantum3D developed integrated interactive 3D visual computing systems,  
2 realtime 3D graphics subsystems, and related system software, for the visual simulation and  
3 training market. The products of Quantum3D included high-end visual simulation systems, and  
4 interactive, open-architecture visual computing solutions, image generators, and embedded  
5 graphics subsystems. Some of the products of Quantum3D were regulated by the International  
6 Traffic in Arms Regulations (ITAR), such as “nVSensor™” and “viXsen™”. The products of  
7 Quantum3D were sold and shipped, and intended to be sold and shipped, in interstate and foreign  
8 commerce.

9 CG<sup>2</sup>

10 2. CG<sup>2</sup>, Inc. (CG<sup>2</sup>), based in Huntsville, Alabama, was a company engaged in the  
11 business of developing software products and services for real-time 3D graphics visualization,  
12 3D model development, and simulation development. The products of CG<sup>2</sup> were sold and  
13 shipped, and intended to be sold and shipped, in interstate and foreign commerce.

14 Quantum3D and CG<sup>2</sup> Merger

15 3. In or about July 2002, Quantum3D and CG<sup>2</sup> merged and CG<sup>2</sup> became a wholly  
16 owned subsidiary of Quantum3D.

17 Quantum3D Products

18 4. Many of the products of Quantum3D were designed primarily for military  
19 purposes, including military combat training in simulated real-time conditions during the day and  
20 night and the use of advanced infrared (IR), Electro-Optical (EO), and Night Vision Goggle  
21 (NVG) devices.

22 5. Quantum3D owned the following products:

23 a. “Mantis™” (Mantis) was used for visual simulation to render 3D scenes  
24 and to simulate motion in the real world for training and other purposes. Mantis was comprised  
25 of two components, the MantisClient and the MantisServer. MantisClient received commands  
26 from the customer “host” computer; coordinated with MantisServer to control the 3D scene; and  
27 allowed plug-ins (or add-ons) for added capability (e.g. igSigSim/ViXsen, ChannelMask).  
28 MantisClient rendered 3D scenes; allowed plug-ins for added capability (e.g. igSigSim/ViXsen,

ChannelMask); and sent output to a display or projector. Collectively, MantisClient and MantisServer provided an “Open-Platform” software Image Generator (IG) that was used for designing, building, and deploying high-end visual simulation scenarios. Mantis was designed to work with additional software plug-ins that offer additional capabilities, including special effects, sensors, weather, and lighting along with mission functions. Mantis was used alone or with additional programs (or “plug-ins”) to simulate various conditions that arise in flight or battlefield conditions, including real-time sensor effects, such as “viXsen™”.

b. “viXsen™”(previously named “igSigSim”) (hereinafter viXsen) was a Quantum3D visual simulation software program used for training military fighter pilots who were utilizing night visual sensor equipment (e.g. thermal imaging). viXsen, exclusively used in military applications, used a physics-based, dynamic, real-time sensor simulation product that allowed users to model advanced IR, EO, and NVG devices. viXsen was a sensor product that was designed to perform advanced heat transfer algorithms. The combination of viXsen and Mantis allowed visualization of real-time correlated and realistic sensor views for military training environments. viXsen was regulated under United States International Traffic in Arms Regulations (“ITAR”).

c. “nVSensor™” (nVSensor), which had both a hardware and software component, provided night vision simulation and operated in conjunction with viXsen along with Quantum3D hardware, including AAlchemy and Obsidian graphics subsystems. nVSensor, exclusively used in military applications, is designed for precision training and simulation applications that require high-fidelity NVG and/or IR synthetic environments. nVSensor supported special effects including blur, noise, scintillations, gain, bias, reticles and symbology, AC coupling, automatic gain control, polarity inversion, and white-hot/black-hot settings. nVSensor was also regulated under ITAR.

d. “OpenGVS (OpenGVS) Software Development Kit” (SDK) offered seamless real-time solutions that bridge the gap between PC and UNIX platforms. OpenGVS was a comprehensive applications programming interface (API) for PCs and 3D graphics workstations. OpenGVS allowed the user to use 3D database development and equations of

1 motion.

2 e. The “VTree™ SDK” was a comprehensive 3D graphics toolkit. VTree  
3 SDK was used to convert 3D models into a format which would be usable by Mantis.

4 f. “Audition” software supported real-time viewing and manipulation of 3-D  
5 data. The Audition viewer was loaded data into VTree and other file formats. Audition was a  
6 Q3D software tool used to validate the functionality of 3D models when integrated into Mantis.

7 g. “Channel Mask” was a software plug-in used to crop an image being  
8 displayed so that the image fit the display, such as the windshield of a cockpit.

9 h. “SpliceTree” was used to view models and the internal organization of the  
10 model to ensure it was properly constructed.

11 i. “Big Demo” was a demonstration program used to highlight the  
12 capabilities of Mantis and other Quantum3D products.

13 Defendant Meng’s Positions, Tenure, And Obligations With Quantum3D

14 6. During on or about June 19, 2000 to on or about March 7, 2003, defendant  
15 XIAODONG SHELDON MENG was employed at Quantum3D as a Systems Engineer VST,  
16 computer systems analyst, and 3D Graphics Application Senior Engineer.

17 7. On or about June 19, 2000, defendant Meng signed Quantum3D’s “Employee  
18 Proprietary Information Agreement” as part of his employment. This agreement provided in part:

19 “I agree that, at the time of leaving the employ of the company, I will deliver to the  
20 Company (and I will not keep in my possession or deliver to anyone else) any and all  
21 devices, records, data, notes, reports, proposals, lists, correspondence, specifications,  
22 drawings, blueprints, sketches, materials, equipment, other documents or property or  
23 reproductions of any aforementioned items belonging to the company, its successors  
24 or assigns.”

25 8. In or about August 2002, defendant XIAODONG SHELDON MENG attended a  
26 training conference in Huntsville, Alabama to learn more about Mantis and other CG<sup>2</sup> products.

27 9. On or about March 7, 2003, defendant XIAODONG SHELDON MENG resigned  
28 his position from Quantum3D.

10. On or about March 7, 2003, defendant XIAODONG SHELDON MENG falsely  
made the following statement:

“This is to certify that I do not have in my possession, nor have I failed to return,

any specifications, drawings, blueprints, reproductions, sketches, notes, reports, proposals, or copies of them, or other documents or materials, tools, equipment, or other property belonging to Quantum3D (the ‘Company’).”

11. During the period from on or about March 7, 2003 to on or about April 1, 2003, defendant XIAODONG SHELDON MENG had no employment, consulting or other relationship with Quantum3D.

12. On or about March 19, 2003, defendant XIAODONG SHELDON MENG entered into a “Consulting Services Agreement” with Quantum3D, effective April 1, 2003, in which MENG would serve as an independent consultant for Quantum3D in Asia.

13. On or about March 26, 2003, defendant XIAODONG SHELDON MENG departed the United States from San Francisco, California for Taipei, Republic of China (Taiwan).

14. Between on or about April 1, 2003, to on or about December 31, 2003, defendant XIAODONG SHELDON MENG served as an independent consultant for Quantum3D in Asia. Meng resided in the People's Republic of China (PRC).

15. On or about January 6, 2004, defendant XIAODONG SHELDON MENG represented that he was a Manager for Orad, Inc. (Orad), a direct competitor of Quantum3D, specifically, Orad Vis-Sim Asia Sales using the email address of [sheldonm@orad.tv](mailto:sheldonm@orad.tv).

16. On or about January 15, 2004, defendant XIAODONG SHELDON MENG ended his consulting relationship with Quantum 3D citing an effective date of December 31, 2003. Meng had already taken a position with Orad, a direct competitor of Quantum3D, in the PRC, and indicated his desire to “pursue other career development opportunities in China.”

#### The Export and Import of Defense Articles

17. The export from, and import into, the United States of arms, munitions, military aircraft parts, and related components, and the technology to build such items, is heavily regulated by statutes and regulations.

18. The Arms Export Control Act, Title 22, United States Code, Section 2778, and the International Traffic in Arms Regulations (the “ITAR”), Title 22, Code of Federal Regulations, Part 120, authorize the United States State Department's Directorate of Defense

1 Trade Controls (“the DDTC”) to establish the United States Munitions List (“the Munitions  
2 List”).

3 19. The defense articles which are subject to such licensing requirements are  
4 designated on the United States Munitions List. Those designations are made by the State  
5 Department with the concurrence of the Defense Department, under 22 U.S.C. § 2778(a)(1), and  
6 22 C.F.R. § 120.2. The Munitions List is a catalog of designated “defense articles” subject to  
7 export and certain import restrictions. Any person who intends to export, or import temporarily,  
8 defense articles on the Munitions List from or into the United States, is required to first obtain a  
9 license from the DDTC. In the application for an export license, the exporter is required to state,  
10 among other things, the nature of the defense articles to be exported, the end recipient of the  
11 defense articles and the purpose for which such articles are intended. These factors and others  
12 assist the DDTC in determining whether the export of the defense articles would further the  
13 security and foreign policy interests of the United States or would otherwise affect world peace.  
14 A foreign person, however, may not obtain a license to export an item on the United States  
15 Munitions List (“Munitions List”).

16 20. Category IX of the Munitions List covered “Military Training Equipment and  
17 Training.” The following defense articles were covered under Category IX:

18 a. “Training equipment specifically designed, modified, configured or  
19 adapted for military purposes, including but not limited to weapons system trainers, radar  
20 trainers, gunnery training devices, antisubmarine warfare trainers, target equipment, armament  
21 training units, pilot-less aircraft trainers, navigation trainers and human-rated centrifuges.”

22 b. “Simulation devices for the items covered by this subchapter.”

23 c. “Tooling and equipment specifically designed or modified for the  
24 production of articles controlled by this category.”

25 d. “Components, parts, accessories, attachments, and associated equipment  
26 specifically designed, modified, configured, or adapted for the articles in,” the prior three  
27 paragraphs.

28 e. Technical data and defense services directly related to the defense articles

enumerated in paragraphs (a) and (d).

21. The Department of State had determined that viXsen and nVSensor were defense articles under Category IX of the Munitions List.

22. At no time did the defendant XIAODONG SHELDON MENG apply for, receive, or possess a license to export defense articles and services of any description.

COUNT ONE: (Conspiracy – 18 U.S.C. § 371)

23. Paragraphs One through Twenty-Two are hereby realleged and incorporated by reference as if set forth in full herein.

24. Beginning at a time unknown, but not later than in or about March 2003, and continuing thereafter through in or about December 2004, in the Northern District of California, and elsewhere, the defendant

XIAODONG SHELDON MENG,

did knowingly combine, conspire, confederate and agree with others known and unknown to the Grand Jury, to commit the following offenses against the United States, that is:

- A. Intending and knowing that the offense would benefit a foreign government, and instrumentalities thereof, knowingly possess and without authorization copy, duplicate, and alter trade secrets belonging to Quantum3D, knowing the trade secrets to have been stolen, appropriated, and obtained without authorization, in violation of the Economic Espionage Act, Title 18, United States Code, Section 1831;
- B. Knowingly possess and without authorization copy, duplicate, and alter trade secrets belonging to Quantum3D, knowing the trade secrets to have been stolen, appropriated, and obtained without authorization, in violation of Title 18, United States Code, Section 1832;
- C. Unlawfully transport in foreign and interstate commerce stolen goods, wares and merchandise of Quantum3D of the value of \$5,000 or more, knowing the same to have been stolen, in violation of Interstate and Foreign Transportation of Stolen Property Act, Title 18, United States Code, Section 2314.

This conspiracy involved the unauthorized use of Quantum3D products and materials with entities and government agencies in Thailand, including the Royal Thai Air Force.

MANNER AND MEANS OF THE CONSPIRACY

In furtherance of the conspiracy, defendant XIAODONG SHELDON MENG, and others known and unknown to the Grand Jury, employed the following manner and means among others:

1           25.     It was a part of the conspiracy that defendant XIAODONG SHELDON MENG  
2 failed to deliver and return to Quantum3D, as required and as he had previously agreed, property  
3 and material belonging to Quantum3D upon his termination with and leaving Quantum3D,  
4 including “any and all devices, records, data, notes, reports, proposals, lists, correspondence,  
5 specifications, drawings, blueprints, sketches, materials, equipment, other documents or property  
6 or reproductions of any aforementioned items.”

7           26.     It was further a part of the conspiracy that defendant XIAODONG SHELDON  
8 MENG took, without authorization, from the United States, numerous Quantum3D products to  
9 Asia, including defense articles on the U.S. Munitions List from the United States, including  
10 viXsen source code and nVSensor source code.

11           27.     It was further part of the conspiracy that defendant XIAODONG SHELDON  
12 MENG traveled to Asia, and took with him documents, products, source code, and materials  
13 containing or relating to trade secrets and products belonging to Quantum3D.

14           28.     It was further a part of the conspiracy that defendant XIAODONG SHELDON  
15 MENG used Quantum3D products, without authorization, in proposals with foreign governments  
16 and customers, including but not limited to the Royal Thai Air Force, the Royal Malaysian Air  
17 Force, and the PRC.

18           29.     It was further part of the conspiracy that defendant XIAODONG SHELDON  
19 MENG and other persons, known and unknown to the Grand Jury, would and did attempt to  
20 recruit others, including engineers from the Thailand, the PRC, and Malyasia to participate in and  
21 work proposals and demonstration projects involving foreign governments and companies.

22           30.     It was further part of the conspiracy that defendant XIAODONG SHELDON  
23 MENG and other persons, known and unknown to the Grand Jury, included Quantum3D  
24 products and ideas in proposals and demonstration projects involving foreign governments and  
25 companies.

26           31.     It was further part of the conspiracy that defendant XIAODONG SHELDON  
27 MENG possessed a compiler program which could be used to convert source code into an  
28 executable application.



1           32.     It was further part of the conspiracy that defendant XIAODONG SHELDON  
2 MENG, and others known and unknown to the Grand Jury, attempted to compile, or caused to be  
3 compiled, source code belonging to Quantum3D.

4           33.     It was further part of the conspiracy that defendant XIAODONG SHELDON  
5 MENG established and worked with other companies for the purpose of selling products in the  
6 visual simulation market, in competition with Quantum3D. The companies included 4-D Space,  
7 Orad, EastCad, Heitech Padhu, and Thai Equipment Research Co. Ltd.

8           34.     It was further part of the conspiracy that defendant XIAODONG SHELDON  
9 MENG copied a Q3D software program involving 3D military training software program to his  
10 laptop.

11           35.     It was further part of the conspiracy that defendant XIAODONG SHELDON  
12 MENG, and others unknown to the Grand Jury, offered to sell and provide technology and  
13 software source code as part of the proposals to foreign governments and customers in the visual  
14 simulation market.

15           36.     It was further part of the conspiracy that defendant XIAODONG SHELDON  
16 MENG used various e-mail accounts to communicate with coconspirators and others concerning  
17 the use of Quantum3D products in proposals and demonstration projects involving foreign  
18 governments and companies, including [smeng\\_cn@yahoo.com.cn](mailto:smeng_cn@yahoo.com.cn), [sheldon@keverian.com](mailto:sheldon@keverian.com),  
19 [smeng@4d-space.com](mailto:smeng@4d-space.com), and of [sheldonm@orad.tv](mailto:sheldonm@orad.tv).

20           37.     It was further part of the conspiracy that defendant XIAODONG SHELDON  
21 MENG, directed, and caused to be directed, another person unknown to the Grand Jury, to delete  
22 approximately nine-hundred sixty-six (966) emails from defendant XIAODONG SHELDON  
23 MENG's account at [smeng\\_cn@yahoo.com.cn](mailto:smeng_cn@yahoo.com.cn).

24                   OVERT ACTS

25           38.     In furtherance of the conspiracy, and to effectuate its objects, defendant  
26 XIAODONG SHELDON MENG, committed overt acts, in the Northern District of California,  
27 and elsewhere, including:

28                   a.     On or about July 27, 2004, defendant XIAODONG SHELDON MENG e-

1 mailed a person known to the Grand Jury, using email account [sheldon@keverian.com](mailto:sheldon@keverian.com), and  
2 stated that he had retained a Quantum3D Obsidian FX in the PRC, and asked for a place to store  
3 it since it could be used for their development in the future.

4 b. On or about July 27, 2004, a person known to the grand jury told  
5 defendant XIAODONG SHELDON MENG that the Quantum3D Obsidian FX could be stored in  
6 Thailand and directed that the Quantum3D Obsidian FX be sent to the Thai Equipment Research  
7 Company, Ltd. in Bangkok, Thailand, including for the Royal Thai Air Force proposal.

8 c. On or about August 16, 2004, defendant XIAODONG SHELDON MENG  
9 unzipped, or caused someone to unzip, the zipfile containing source code for product of  
10 Quantum3D.

11 d. Between on or about December 22, 2004 and on or about January 2, 2005,  
12 defendant XIAODONG SHELDON MENG, directed, and caused to be directed, another person  
13 unknown to the Grand Jury, to delete approximately nine-hundred sixty-six (966) emails from  
14 defendant XIAODONG SHELDON MENG's account at smeng\_cn@yahoo.com.cn.

15 e. Paragraphs 47(a), 47(b), 47(c), 47(d), and 47(e) are hereby realleged and  
16 incorporated by reference as if set forth in full herein.

17 All in violation of Title 18, United States Code, Section 371.

18 COUNT TWO: (Conspiracy – 18 U.S.C. § 371)

19 39. Paragraphs One through Twenty-Two are hereby realleged and incorporated by  
20 reference as if set forth in full herein.

21 40. Beginning at a time unknown, but not later than in or about March 2003, and  
22 continuing thereafter through in or about December 2004, in the Northern District of California,  
23 and elsewhere, the defendant

24 XIAODONG SHELDON MENG,  
25 did knowingly combine, conspire, confederate and agree with others known and unknown to the  
26 Grand Jury, to commit the following offenses against the United States, that is:

27 A. Intending and knowing that the offense would benefit a foreign government, and  
28 instrumentalities thereof, knowingly possess and without authorization copy,  
duplicate, and alter trade secrets belonging to Quantum3D, knowing the trade  
secrets to have been stolen, appropriated, and obtained without authorization, in

violation of the Economic Espionage Act, Title 18, United States Code, Section 1831;

B. Knowingly possess and without authorization copy, duplicate, and alter trade secrets belonging to Quantum3D, knowing the trade secrets to have been stolen, appropriated, and obtained without authorization, in violation of Title 18, United States Code, Section 1832;

C. Unlawfully transport in foreign and interstate commerce stolen goods, wares and merchandise of Quantum3D of the value of \$5,000 or more, knowing the same to have been stolen, in violation of Interstate and Foreign Transportation of Stolen Property Act, Title 18, United States Code, Section 2314.

This conspiracy involved the unauthorized use of Quantum3D products and materials with entities and government agencies in the PRC, including Beijing Lantian Aviation Simulation Technology Company (BASC) (also referred to as Beijing Aviation Science and Technology Co., Ltd., and Blue Sky), a subsidiary of China Aviation Industry Corporation I (AVIC I), the Navy Research Center of the PRC, and the Shenzhen Land Management Bureau.

#### MANNER AND MEANS OF THE CONSPIRACY

In furtherance of the conspiracy, defendant XIAODONG SHELDON MENG, and others known and unknown to the Grand Jury, employed the following manner and means among others:

41. Paragraphs Twenty-Five through Thirty-Seven are hereby realleged and incorporated by reference as if set forth in full herein.

42. It was further part of the conspiracy that defendant XIAODONG SHELDON MENG, and others unknown to the Grand Jury, altered Mantis version 1.5.5 to reflect the name of a program (identified as DVG10) which belonged to ORAD, a competitor of Quantum3D, and which was included as part of a demonstration project in the PRC.

#### OVERT ACTS

43. In furtherance of the conspiracy, and to effectuate its objects, defendant XIAODONG SHELDON MENG, committed overt acts, in the Northern District of California, and elsewhere, including:

a. Paragraphs 38(c) and 38(d) are hereby realleged and incorporated by reference as if set forth in full herein.

b. On or about May 19, 2004, defendant XIAODONG SHELDON MENG

1 conducted a demonstration for Blue Sky (AVIC I) in Beijing, PRC.

2 c. On or about May 24, 2004, defendant XIAODONG SHELDON MENG  
3 prepared Quantum3D's OpenGVS for demonstration on the DVG (Digital Video Graphics) in  
4 the PRC.

5 d. Between on or about May 31, 2004 and June 4, 2004, defendant  
6 XIAODONG SHELDON MENG compared and ran Quantum3D's product Independence with  
7 Orad's DVG product.

8 e. On or about June 3, 2004, defendant XIAODONG SHELDON MENG  
9 prepared a DVG digital visual system proposal for Blue Sky (AVIC I) that discussed options for  
10 image generator solutions.

11 f. On or about July 26, 2004, defendant XIAODONG SHELDON MENG  
12 programmed new demonstrations on the DVG system.

13 g. On or about September 10, 2004, defendant XIAODONG SHELDON  
14 MENG met with members of the Chinese Air Force about the DVG technology.

15 h. On or about September 15, 2004, defendant XIAODONG SHELDON  
16 MENG installed a DVG demonstration unit on a PRC Navy site.

17 i. On or about October 21, 2004, defendant XIAODONG SHELDON  
18 MENG asked a person known to the Grand Jury to take back the DVG demonstration system  
19 from the Navy Research Center.

20 j. On or about November 23, 2004, defendant XIAODONG SHELDON  
21 MENG sent an email to a person known to the Grand Jury that he met with and discussed the  
22 installation of a DVG, 3 channel demo at Blue Sky, believed to be BASC/AVIC I.

23 k. Paragraphs 47(a), 47(b), 47(c), 47(d), and 47(e) are hereby realleged and  
24 incorporated by reference as if set forth in full herein.

25 All in violation of Title 18, United States Code, Section 371.

26 COUNT THREE: (Conspiracy – 18 U.S.C. § 371)

27 44. Paragraphs One through Twenty-Two are hereby realleged and incorporated by  
28 reference as if set forth in full herein.

1           45.     Beginning at a time unknown, but not later than in or about March 2003, and  
2 continuing thereafter through in or about December 2004, in the Northern District of California,  
3 and elsewhere, the defendant

4                               XIAODONG SHELDON MENG,  
5 did knowingly combine, conspire, confederate and agree with others known and unknown to the  
6 Grand Jury, to commit the following offenses against the United States, that is:

- 7           A.     Intending and knowing that the offense would benefit a foreign government, and  
8                   instrumentalities thereof, knowingly possess and without authorization copy,  
9                   duplicate, and alter trade secrets belonging to Quantum3D, knowing the trade  
10                  secrets to have been stolen, appropriated, and obtained without authorization, in  
11                  violation of the Economic Espionage Act, Title 18, United States Code, Section  
12                  1831;  
13           B.     Knowingly possess and without authorization copy, duplicate, and alter trade  
14                  secrets trade secrets belonging to Quantum3D, knowing the trade secrets to have  
15                  been stolen, appropriated, and obtained without authorization, in violation of Title  
16                  18, United States Code, Section 1832;  
17           C.     Unlawfully transport in foreign and interstate commerce stolen goods, wares and  
18                  merchandise of Quantum3D of the value of \$5,000 or more, knowing the same to  
19                  have been stolen, in violation of Interstate and Foreign Transportation of Stolen  
20                  Property Act, Title 18, United States Code, Section 2314.

21   This conspiracy involved the unauthorized use of Quantum3D products and materials with  
22 entities and government agencies in Malaysia, including the Royal Malaysian Air Force.

23                               MANNER AND MEANS OF THE CONSPIRACY

24           In furtherance of the conspiracy, defendant XIAODONG SHELDON MENG, and others  
25 known and unknown to the Grand Jury, employed the following manner and means among  
26 others:

27           46.     Paragraphs Twenty-Five through Thirty-Seven are hereby realleged and  
28 incorporated by reference as if set forth in full herein.

OVERT ACTS

          47.     In furtherance of the conspiracy, and to effectuate its objects, defendant  
XIAODONG SHELDON MENG, committed overt acts, in the Northern District of California,  
and elsewhere, including:

          a.     Paragraphs 38(c) and 38(d) are hereby realleged and incorporated by  
reference as if set forth in full herein.

1           b.       On or about June 15, 2003, defendant XIAODONG SHELDON MENG,  
2 and others unknown to the Grand Jury, attempted to compile, and caused to be compiled,  
3 Audition source code version 4.1.0.46.

4           c.       On or about August 17, 2003, defendant XIAODONG SHELDON  
5 MENG attempted to compile, and caused others to attempt to compile, Fulcrum source code, a  
6 product Quantum3D.

7           d.       On or about August 17, 2003, defendant XIAODONG SHELDON  
8 MENG attempted to compile, and caused others to attempt to compile, source code into the  
9 MantisClient application.

10          e.       On or about June 20, 2004, defendant XIAODONG SHELDON MENG  
11 sent an email to a person known to the Grand Jury suggesting the use of Quantum3D products  
12 viXsen and Mantis for an image generator proposal. Defendant Meng also noted that he had  
13 “genius engineers in China who are interested in developing Sensor” products.

14       All in violation of Title 18, United States Code, Section 371.

15 COUNT FOUR:       (Economic Espionage and Attempted Economic Espionage – 18 U.S.C. §§  
16                           1831(a)(3), 1831(a)(4) and 2)

17          48.       Paragraphs One through Sixteen are hereby realleged and incorporated by  
18 reference as if set forth in full herein.

19          49.       Beginning in or about March 2003 and continuing to in or about December 2004,  
20 in the Northern District of California, and elsewhere, the defendant

21                           XIAODONG SHELDON MENG,  
22 intending and knowing that the offense would benefit a foreign government, namely Thailand,  
23 and instrumentalities thereof including the Royal Thai Air Force, did knowingly possess trade  
24 secrets belonging to Quantum3D, that is, Mantis and viXsen, and attempt to do so, knowing the  
25 trade secrets to have been stolen, appropriated, and obtained without authorization.

26       All in violation of Title 18, United States Code, Sections 1831(a)(3), 1831(a)(4) and 2.

27 COUNT FIVE:       (Economic Espionage and Attempted Economic Espionage – 18 U.S.C. §§  
28                           1831(a)(3), 1831(a)(4) and 2)

50.       Paragraphs One through Sixteen are hereby realleged and incorporated by

reference as if set forth in full herein.

51. Beginning in or about March 2003 and continuing to in or about December 2004, in the Northern District of California, and elsewhere, the defendant

XIAODONG SHELDON MENG,  
intending and knowing that the offense would benefit a foreign government, namely the PRC, and instrumentalities thereof including Beijing Lantian Aviation Simulation Technology Company (BASC) (also referred to as Beijing Aviation Science and Technology Co., Ltd., and Blue Sky), a subsidiary of China Aviation Industry Corporation I (AVIC I), the Navy Research Center of the PRC, and the Shenzhen Land Management Bureau, did knowingly possess trade secrets belonging to Quantum3D, that is, Mantis and viXsen, and attempt to do so, knowing the trade secrets to have been stolen, appropriated, and obtained without authorization.

All in violation of Title 18, United States Code, Sections 1831(a)(3), 1831(a)(4) and 2.

COUNT SIX: (Economic Espionage and Attempted Economic Espionage – 18 U.S.C. §§ 1831(a)(3), 1831(a)(4) and 2)

52. Paragraphs One through Sixteen are hereby realleged and incorporated by reference as if set forth in full herein.

53. Beginning in or about March 2003 and continuing to in or about December 2004, in the Northern District of California, and elsewhere, the defendant

XIAODONG SHELDON MENG,  
intending and knowing that the offense would benefit a foreign government, namely Malaysia, and instrumentalities thereof including the Royal Malaysia Air Force, did knowingly possess and did knowingly without authorization copy, duplicate, and alter trade secrets belonging to Quantum3D, that is, Mantis and viXsen, and attempt to do so, knowing the trade secrets to have been stolen, appropriated, and obtained without authorization.

All in violation of Title 18, United States Code, Sections 1831(a)(3), 1831(a)(4) and 2.

COUNTS SEVEN & EIGHT: (Arms Export Control Act – 22 U.S.C. § 2778 and 18 U.S.C. § 2)

54. Paragraphs One through Twenty-two are hereby realleged and incorporated by reference as if set forth in full herein.

55. Beginning in or about March 2003 and continuing through in or about November 2004, in the Northern District of California, and elsewhere, the defendant

XIAODONG SHELDON MENG,

did knowingly and willfully export and cause to be exported from the United States to the PRC, defense articles, that were designated as defense articles on the United States Munitions List, Title 22, Code of Federal Regulations, known as the International Traffic in Arms Regulations, without having first obtained from the Department of State a license for such export or written authorization for such export, as set forth in the separate counts below:

| COUNT | UNITED STATES MUNITIONS LIST DEFENSE ARTICLE |
|-------|--|
| 7     | viXsen source code                           |
| 8     | nVSensor source code                         |

All in violation of Title 22, United States Code, Section 2778 and Title 18, United States Code, Section 2.

|                                      |   |
|--------------------------------------|---|
| <u>COUNTS NINE THROUGH FOURTEEN:</u> | (Misappropriation Of Trade Secrets and Attempted Misappropriation Of Trade Secret Violations – 18 U.S.C. §§ 1832(a)(1), 1832(a)(4)) |
|--------------------------------------|---|

56. Paragraphs One through Sixteen are hereby realleged and incorporated by reference as if set forth in full herein.

57. In or about August 2002, in the Northern District of California, and elsewhere, the defendant

XIAODONG SHELDON MENG,  
with intent to convert trade secrets belonging to Quantum3D to the economic benefit of someone  
other than the owner thereof, which trade secrets are related to and included in products that are  
produced for and placed in interstate and foreign commerce, did knowingly steal and without  
authorization appropriate, take, carry away, and conceal, and by fraud, artifice, and deception  
obtain such information, and attempt to do so, and intending and knowing that his act would  
injure Quantum3D, as set forth in the separate counts below:

// // //



// // //

| COUNT | TRADE SECRET                          |
|-------|---------------------------------------|
| 9     | Mantis source code version 1.4.5 ER3  |
| 10    | viXsen source code version            |
| 11    | nVSensor source code                  |
| 12    | Channel Mask source code              |
| 13    | Audition source code version 4.1.0.46 |
| 14    | Vtree source code version 4.0         |

All in violation of Title 18, United States Code, Sections 1832(a)(1), 1832(a)(4) and 2.

COUNTS FIFTEEN THROUGH TWENTY: (Misappropriation Of Trade Secrets and Attempted Misappropriation Of Trade Secret Violations – 18 U.S.C. §§ 1832(a)(3), 1832(a)(4))

58. Paragraphs One through Sixteen are hereby realleged and incorporated by reference as if set forth in full herein.

59. Beginning in or about March 2003 and continuing through in or about November 2004, in the Northern District of California, and elsewhere, the defendant

XIAODONG SHELDON MENG,  
with intent to convert trade secrets belonging to Quantum3D to the economic benefit of someone other than the owner thereof, which trade secrets are related to and included in products that are produced for and placed in interstate and foreign commerce, did knowingly possess such information knowing it to have been stolen, appropriated, obtained, and converted without authorization, and attempting to do so, and intending and knowing that his act would injure Quantum3D, as set forth in the separate counts below:

| COUNT | TRADE SECRET                         |
|-------|--------------------------------------|
| 15    | Mantis source code version 1.4.5 ER3 |
| 16    | viXsen source code version           |
| 17    | nVSensor source code                 |
| 18    | Channel Mask source code             |

|    |                                       |
|----|---------------------------------------|
| 19 | Audition source code version 4.1.0.46 |
| 20 | Vtree source code version 4.0         |

All in violation of Title 18, United States Code, Sections 1832(a)(3), 1832(a)(4) and 2.

COUNTS TWENTY-ONE THROUGH TWENTY-SIX: (Interstate Transportation of Stolen Property – 18 U.S.C. §§ 2314 and 2)

60. Paragraphs One through Sixteen are hereby realleged and incorporated by reference as if set forth in full herein.

61. In or about August 2002, in the Northern District of California, and elsewhere, the defendant

XIAODONG SHELDON MENG,

did unlawfully transport, transmit and transfer in interstate commerce from Huntsville, Alabama to San Jose, California, and elsewhere, stolen goods, wares and merchandise, of the value of \$5,000 or more, knowing the same to have been stolen, converted, and taken by fraud, as set forth in the separate counts below:

| COUNT | STOLEN GOODS, WARES, AND MERCHANDISE  |
|-------|---------------------------------------|
| 21    | Mantis source code version 1.4.5 ER3  |
| 22    | viXsen source code version            |
| 23    | nVSensor source code                  |
| 24    | Channel Mask source code              |
| 25    | Audition source code version 4.1.0.46 |
| 26    | Vtree source code version 4.0         |

All in violation of Title 18, United States Code, Sections 2314 and 2.

// // //

// // //

COUNTS TWENTY-SEVEN THROUGH THIRTY-THREE:

(Interstate Or Foreign  
Transportation of Stolen  
Property – 18 U.S.C. §§ 2314  
and 2)

62. Paragraphs One through Sixteen are hereby realleged and incorporated by reference as if set forth in full herein.

63. Between in or about March 2003 through in or about November 2004, in the Northern District of California, and elsewhere, the defendant

XIAODONG SHELDON MENG,

did unlawfully transport, transmit and transfer in interstate or foreign commerce from San Jose, California, to Taipei, Taiwan, the PRC, and elsewhere, stolen goods, wares and merchandise, of the value of \$5,000 or more, knowing the same to have been stolen, converted, and taken by fraud, as set forth in the separate counts below:

| COUNT | STOLEN GOODS, WARES, AND MERCHANDISE  |
|-------|---------------------------------------|
| 27    | Mantis source code version 1.4.5 ER3  |
| 28    | viXsen source code version            |
| 29    | nVSensor source code                  |
| 30    | Channel Mask source code              |
| 31    | Audition source code version 4.1.0.46 |
| 32    | Vtree source code version 4.0         |
| 33    | Mantis version 1.5.5                  |

All in violation of Title 18, United States Code, Sections 2314 and 2.

COUNTS THIRTY-FOUR THROUGH THIRTY-SIX:

(False Statement To Government  
Agency – 18 U.S.C. § 1001)

64. Paragraphs One through Twenty-Two are hereby realleged and incorporated by reference as if set forth in full herein.

65. A federal criminal investigation (“the criminal investigation”) commenced in the Northern District of California concerning the misappropriation and theft of trade secrets, materials and properties belonging to Quantum3D, and the unlawful export of United States Munitions List items. The criminal investigation focused on violations of federal law, including

1 but not limited to Conspiracy, Economic Espionage, and Attempted Economic Espionage; Arms  
2 Export Control Act; Theft Of Trade Secrets and Attempted Theft Of Trade Secrets; and Foreign  
3 and Interstate Transportation of Stolen Property. The investigation was jointly undertaken by the  
4 Federal Bureau of Investigation (“FBI”) and U.S. Immigration & Customs Enforcement (“ICE”),  
5 each an agency within the jurisdiction of the executive branch of the government of the United  
6 States.

7 66. As part of the criminal investigation, defendant XIAODONG SHELDON MENG  
8 was interviewed regarding the following matters, among others, which were material to the  
9 criminal investigation, including the extent and scope and role of XIAODONG SHELDON  
10 MENG, along with any others, in any:

- 11 (a) Theft, misappropriation and failure to return any materials and trade secrets  
12 belonging to Quantum3D, including but not limited to source code;
- 13 (b) Unauthorized use of any materials and trade secrets belonging to Quantum3D,  
14 including but not limited to foreign countries and companies;
- 15 (c) Alteration of any materials and trade secrets belonging to Quantum3D, including  
16 but not limited to Mantis; and
- 17 (d) Unauthorized export of United States Munitions List items, including materials of  
18 Quantum3D, in violation of the Arms Control Export Act.

19 67. These matters were material to the criminal investigation, among others, as they  
20 pertained to the identification of misappropriated, stolen and unauthorized properties taken from  
21 Quantum3D in and through Quantum3D and the Northern District of California.

22 68. On or about December 8, 2004, in the Northern District of California, and  
23 elsewhere, the defendant

24 XIAODONG SHELDON MENG,

25 in a matter within the jurisdiction of the United States Department of Justice, Federal Bureau of  
26 Investigation, and United States Department of Homeland Security, Immigration and Customs  
27 Enforcement, an agency of the United States, that is, concerning violations of the export and  
28 import laws of the United States, economic espionage, and the foreign and interstate  
transportation of stolen property, did knowingly and willfully make false, fictitious and  
fraudulent statements and representations of a material fact, as the defendant then and there well  
knew and believed, as set forth in separate counts below:

| COUNT | FALSE STATEMENT   |
|-------|---|
| 34    | The defendant stated that he only had a few Quantum3D products on his laptop (including the Mantis application and OpenGVS program) and did not have any other Quantum3D files or programs on his laptop, when in truth and fact, the defendant knew that he had numerous Quantum3D files or programs on his laptop |
| 35    | The defendant stated that the software and programs on his laptop were not controlled under ITAR and did not require a license, when in truth and fact, the defendant knew that the software and programs on his laptop were controlled under ITAR and required a license   |
| 36    | The defendant stated that he did not have any encryption on his laptop nor was it password protected, when in truth and fact, the defendant knew that the laptop had encryption and encrypted and password protected files on his laptop  |

All in violation of Title 18, United States Code, Section 1001.

FORFEITURE ALLEGATION: (18 U.S.C. § 1834 and 50 App. U.S.C. § 2410(g) – Criminal Forfeiture)

69. As a result of the offenses alleged in Counts Four, Five, and Six relating to violations of the Economic Espionage Act (18 U.S.C. § 1831), and Counts Seven through Eighteen, relating to violations of Theft of Trade Secrets (18 U.S.C. § 1832), of this superseding indictment, or any of them, defendant

XIAODONG SHELDON MENG,

shall forfeit to the United States, pursuant to 18 U.S.C. § 1834:

- (1) Any property constituting, or derived from, any proceeds the person obtained, directly or indirectly, as the result of such violation; and
- (2) Any of the person's property used, or intended to be used, in any manner or part, to commit or facilitate the commission of such violation, if the court in its discretion so determines, taking into consideration the nature, scope, and proportionality of the use of the property in the offense, including but not limited to:
  - A. Dell Inspiron Laptop Computer & "XEASY" Portable Hard Drive, Serial Number (01)07899029300375
  - B. Fujitsu Hard Drive 60 GB S/N NL14T3212J7L;
  - C. Samsung Hard Drive 40 GB S/N s03WJ10X838410.

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70. As a result of the offenses alleged in Counts Seven and Eight, relating to violations of the Arms Export Control Act (22 U.S.C. § 2778), of this superseding indictment, or any of them, defendant

XIAODONG SHELDON MENG,  
shall forfeit to the United States, pursuant to 50 App. §2410(g):

- (1) Any of their interest in, security of, claim against, or property or contractual rights of any kind in the goods or tangible items that were the subject of the foregoing offense;
- (2) Any of their interest in, security of, claim against, or property or contractual rights of any kind in any tangible property that was used in the export or attempt to export that was the subject of the foregoing offense, including but not limited to:
  - A. Dell Inspiron Laptop Computer & "XEASY" Portable Hard Drive, Serial Number (01)07899029300375
  - B. Fujitsu Hard Drive 60 GB S/N NL14T3212J7L;
  - C. Samsung Hard Drive 40 GB S/N s03WJ10X838410.
- (3) Any of their property constituting, or derived from, any proceeds obtained directly or indirectly as a result of the violation.

All in violation of Title 18, United States Code, Section 1834, and Title 50 App., United States Code, Section 2410(g).

DATED: December \_\_, 2006                      A TRUE BILL.

FOREPERSON

KEVIN V. RYAN  
United States Attorney

MATTHEW A. PARRELLA  
Chief, San Jose Branch

(Approved as to form: AUSA MARK L. KROTOSKI)

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